Lumiglas Luminaire Series USL 06
- for use with sightglass fittings -

Application:

This compact, powerful luminaire can be used for integral light/sight port (single flange version) or separate light and sight port (dual flange version) to illuminate the internals of visual flow indicators, pipelines, laboratory mixers and other vessels and reactors which are normally closed. This model is intended for use in all Non Hazardous Areas. The unit is suitable for food processing. The luminaire must never be inserted into a vessel wall as a sealing element, i.e. without appropriate sightglass disc and fitting.

Sightglass Styles:

This powerful, compact size luminaire is designed to give glare free illumination in combination with sightglass styles as the following:
- bolted circular flanges MOD. DIN 28120
- circular screwed flanges Series MV or Bolt-on Models
- visual flow indicators (tubular or opposed flat glass disc)
- sanitary clamp connection, 1" and larger

Size:

The luminaire is suitable for sightglasses DN 50 (3") and larger.

Protection:

Dust and waterjet tight to IP 65, EN 60529, and NEMA 4.

Ambient Condition Operating Range:

Normally this unit is suitable for ambient temperatures of 80°C (at the cable gland). The unit is independent of any internal vessel pressure or vacuum. When ambient temperature exceeds 40ºC, consult factory when ordering.

Power supply:

The unit can be fitted with various halogen lamps, and thus is suited for AC or DC voltage.
- without built-in transformer
  supply 12 V; halogen lamp 20 W
  supply 24 V; halogen lamp 20 W, 50 W or 100 W
  supply 120 V; halogen lamp 35W, 50 W
  supply 230 V; halogen lamp 50 W
- with built-in transformer
  supply 230 V; halogen lamp 12 V/20 W

Lamp sockets:

see table on following page

Transformers:

Separate transformers with 12 V or 24 V secondary voltage are available

Additions:

- installation set: stainless steel hinged bracket, or (for use with screwed sightglass fitting MV 65) stainless steel adapter flange
- special claw spanner: for opening/tightening the lens ring
- automatic delay switch: Lumiglas Timer

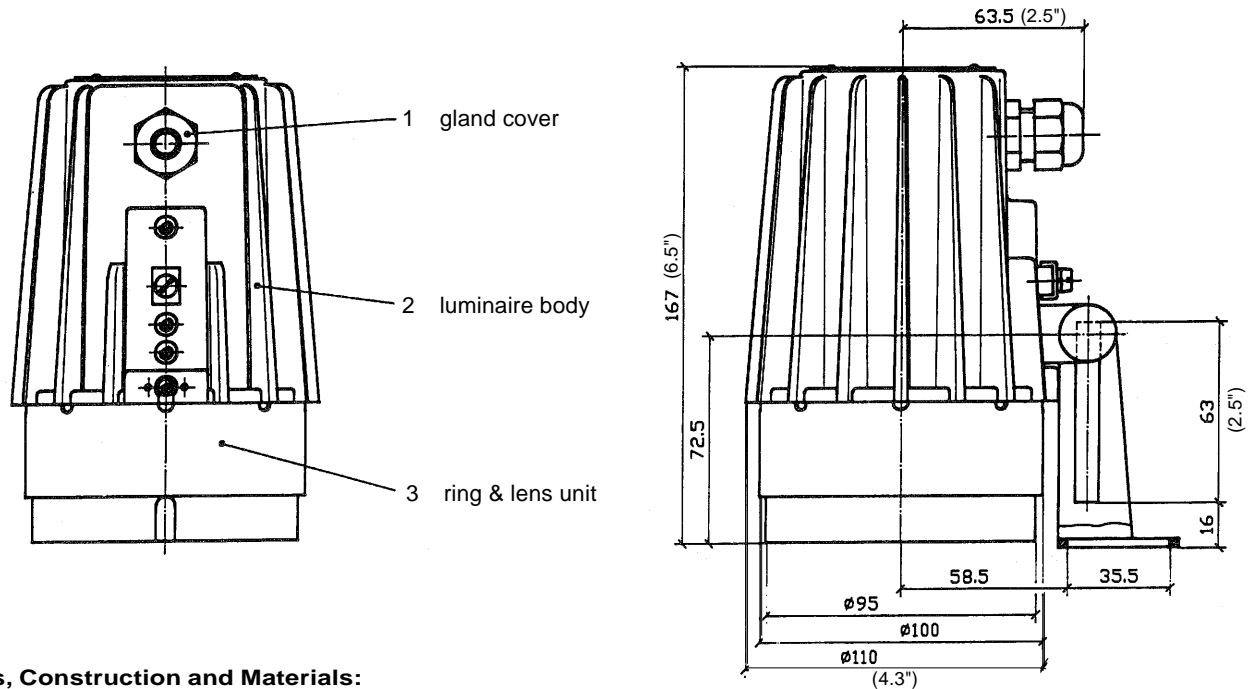**For Installation Instructions please see page 3**

Lumiglas USL 06 with hinged bracket fastening

Lumiglas USL 06 installed on a circular sightglass DIN 28120

Dimensions and Connection Data for Lumiglas Luminaire type USL 06

1 gland cover

2 luminaire body

3 ring & lens unit

Parts, Construction and Materials:
- Luminaire body: Corrosion resistant die cast aluminium, G-Al Si 12 Mg
- Light window: Unit of aluminium ring, glass, rubber ring seal
- Fastenings: See under "Spares"
- Weight: (3.7 lb.) (ex power supply cable), (5.0 lb.) with built-in transformer

Pos.	Type USL 06/75		Part Number	Supply Voltage	Built-in Transformer	Halogen Lamp Socket	Power Intake	Part Number
1	12V	20W	3540.701.00	12	no	GY6.35	12 V / 20 W	3232.240.00
2*	24V	20W	3540.711.00	24	no	G4	24 V / 20 W	3232.206.00
3	230/12V	20W	3540.720.00	230	yes	GY6.35	12 V / 20 W	3232.240.00
4[1]	120V	35W		120	no	E26	120 V / 35 W	BLB N35 E26S BLB N35 E26F
5[1]	120V	50W		120	no	E26	120 V / 50 W	BLB N50 E26S BLB N50 E26F
6	24V	50W	3540.737.00	24	no	GY6.35	24 V / 50 W	3232.242.00
7	230V	50W	3540.740.00	230	no	E27	230 V / 50W	3232.246.00
8								
9								
10	24V	100W	3540.748.00	24	no	GY6.35	24 V / 100 W	3232.244.00

* Pos. No. 2 has the reflector integrated into the lens and ring unit. All other types have an interchangeable reflector fitted to the halogen lamp socket.
[1] Available in spot or flood. Bulb has built-in reflector. Use in ambient temperature environment less than 100 ˚F.

USL 06 Installation Instructions

General:
The unit is usually bolted with its stainless steel hinged bracket to the respective sightglass assembly, such as the cover flange of a bolted circular sightglass or a visual flow indicator or the slotted cover nut of a screwed flange sightglass.

Lumiglas USL 06 can be used on the following sightglass sizes:
- bolted circular flanges MOD. DIN 28120, DN 50 or larger
- circular screwed flanges Bolt-on type, DN 50 or larger
- visual flow indicators, DN 50
- circular screwed flanges Series MV
    - on DN 65 sightglasses the luminaire is installed with an adapter flange
    - on sightglasses DN 80 or larger a hinged bracket is used
- sanitary clamp connection, 1" and larger

Hinged bracket installation:
The hinged bracket is fastened on the flange cover by means of the M8 screw which is furnished with the Lumiglas unit.

Adapter flange installation (optional):
The adapter flange is shaped to fit around the luminaire lens ring. It is either fitted directly onto the slotted cover nut of a sightglass Series MV, or, depending on size, between cover nut and glass. In the latter case please ensure that:
- an appropriate flat gasket is fitted between sightglass disc and adapter flange
- the cover nut is firmly tightened

Then insert the luminaire into the adapter flange and tighten the lateral locking grub screws evenly.

Electrical Connection:
- the cable should be suitable for the ambient conditions, for low voltage and the selected power
- ensure that the cable outside diameter matches the gland cover nut and seals
- use the special claw spanner to loosen the notched lens ring 3 and remove lens ring
- loosen the gland cover nut 1
- insert gland through opening, ensure that the outer cable sheath protrudes well into the housing and that the rubber grommet is in position
- connect the bared leads properly to the ceramic terminal block inside the luminaire and tighten gland cover nut 1
- when closing the luminaire, ensure that the rubber O-ring seal has been inserted properly into the groove of the luminaire body
- tighten lmens ring 3 firmly with special claw spanner

Lamp Change:
- switch off the luminaire and disconnect the power supply
- use the special claw spanner to loosen the notched lens ring 3 and remove lens ring
- replace halogen lamp, ensure bare fingers do not touch the glass, lamps with E26 and E 27 socket are screwed in, the other types have two pins and are plugged into the socket
- refit lens ring, tighten firmly with special claw spanner
- reconnect power

Lumiglas USL 06 installed on a hinged bracket, combined sight/light port, DIN 28120.

Installation with upstand flange, light and sight ports are separate.

Spares

Please read the enclosed operating instructions thoroughly
All dimensions in mm unless stated otherwise
Subject to change without prior notice

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Additions

Automatic switches

Automatic switches offer several advantages:
- reduced energy consumption
- reduced maintenance
- increased lamp life

Lumiglas Timer

The Lumiglas Timer comes installed inside the luminaire housing. Its light operation time is set to 5 minutes "ON" mode.

Automatic time delay module esp. for Ex applications

Timer module with "permanent" option № 3908.012.00   Standard timer module № 3908.011.00

"Ex" type timer modules for installation in the power supply line. Also available with "permanent" switch and with "central power off" mode, can be used in hazardous areas. Such electronic timer modules do not require extra wiring. Available for 24V and for 230V supply power. See data sheet 09.02. for details.